CLAIMS

1. Motor-vehicle starter of the type including an electric motor (10) the output shaft (16) of which rotationally drives a coaxial inertia-type drive with the interposition a step-down planetary gear train (22) including a cylindrical casing (24) within which the crown ring (58), internally toothed, of the planetary gear train (22) is mounted so as to rotate, and of the type in which the crown ring (58) is linked in rotation to the casing (24) by way of a friction-type torque-limiter device which is interposed axially between the crown ring (58) and a lateral flange (30, 34) of the casing (24) and which consists of at least one annular, friction side face (82, 84) of the crown ring (58) and of a disc (88, 89) which is linked in rotation to the casing (24), which are pressed axially and elastically against one another by an elastic element (112) bearing axially on a reaction surface of the disc (88, 89), characterised in that the disc (88, 89) is linked in rotation to the casing (24) by way of at least one damper block (92), elastically deformable, which absorbs mechanical energy when it is compressed, in such a way as to damp the variations in torque transmitted to the crown ring (58).

2. Starter according to the preceding claim, characterised in that the resisting torque, due to the friction, between the reaction surface of the disc (88) and the elastic element (112) is less than the torque between the disc (88) and the crown ring (58).

3. Starter according to Claim 1, characterised in that the casing (24), in its inner periphery, includes at least one axial recess (94) which is limited in angle, and in which is lodged at least one damper block (92).

4. Starter according to Claim 1, characterised in that the disc (88, 89), at its outer periphery, includes at least one lug (98) which carries at least one compression tab (100) extending axially inside the axial recess (94), and in that the damper block (92) is interposed in an angular way between at least one axial face of a compression tab (100) and an opposing side face of the axial recess (94).

5. Starter according to the preceding claim, characterised in that each compression tab (100) is interposed in an angular way between two damper blocks (92) lodged in the same axial recess (94).

6. Starter according to the preceding claim, characterised in that the two damper blocks (92) are produced as a single damper element (93) including an axial slot (102) in which the compression tab (100) is accommodated.

7. Starter according to Claim 1, characterised in that the disc (88, 89) is a component made from cut-out and folded sheet metal with the lug (98) and the compression tab (100) produced as a single piece.

8. Starter according to Claim 4, characterised in that each compression tab (100) is accommodated between two adjacent blocks (92) so as to interact with one or the other depending on the direction of rotation of the starter.

9. Starter according to Claim 1, characterised in that the damper block (92) is made of elastomer material.

10. Starter according to Claim 1, characterised in that the damper block (92) includes protrusions (122), on an axially oriented side face, so as to provide an energy-absorption capability which is variable as a function of the compression of the damper block (92) along a substantially tangential direction.

11. Starter according to Claim 1, characterised in that several damper blocks (92) are distributed over an angle.

12. Starter according to Claim 1, characterised in that the damper blocks (92) are linked together so as to constitute an annular sleeve (106).

13. Starter according to Claim 1, characterised in that an intermediate ring (90) is interposed between the disc (88) and the elastic element (112), and in that the resisting friction torque between the ring (90) and the disc (88) is less than the torque between the disc (88) and the crown ring (58).

14. Starter according to Claim 13, characterised in that the ring (90) is prevented from rotating with respect to the casing (24).